

Remarks

Reconsideration of pending Claims 1-6, 8-10, 17-25, 28-37, 42-45, 47, 50-60, 62-66, 70, 71, 74, 75, 77-79 and 139-156 is respectfully requested.

The allowance of Claims 42-45, 50-54, 60, 63-65, 146 and 149 is acknowledged.

Claims 8, 21, 25, 29, 47, 74, 75, 78-79, 145 and 152-156 stand as withdrawn.

Reconsideration and reinstatement of the withdrawn claims is respectfully requested.

Rejection of Claims under 35 U.S.C. § 102(e) (Branham)

The Examiner rejected Claims 1-5, 10, 18-20, 23, 28, 31-34, 37, 55-57, 62, 66, 70, 71, 77, 139-144, 147, 148, 150 and 151 as anticipated by US 2003/0022568 (Branham). This rejection is respectfully traversed.

The Examiner maintains that Branham discloses the elements of Applicant's composition as claimed.

First of all, at pages 3-4 of the Office Action, the Examiner cited to Branham at paragraph [0112] for teaching "a slurry", paragraph [0113] for teaching silica and titanium dioxide slurry abrasives, and paragraph [0103] for teaching transition metal ions such as copper particles.

Branham describes preparing "detackifying agents" as a slurry of particles – that can be included in the wetting composition to reduce tackiness of the triggerable polymer binder. See at paragraphs [0111] to [0113] (emphasis added):

[0111] Detackifying Agents

[0112] While elevated salt concentrations may reduce the tack of the triggerable binder, other means of tack reduction are often desirable. Thus, detackifying agents may be used in the wetting composition to reduce the tackiness, if any, of the triggerable binder. Suitable detackifiers include any substance known in the art to reduce tack between two adjacent fibrous sheets treated with an adhesive-like polymer or any substance capable of reducing the tacky feel of an adhesive-like polymer on the skin. *Detackifiers may be applied as* solid particles in dry form, as a suspension or *as a slurry of particles*. . . .

[0113] Specific detackifiers include, but are not limited to, powders, such as talc powder, calcium carbonate, mica; starches, such as corn starch; lycopodium powder; mineral fillers, such as titanium dioxide; silica powder; *alumina*; metal oxides in general; baking powder; kieselguhr; and the like. . . .

Applicant's claims do *not* recite a composition in the form of a slurry – nor a composition containing abrasives or metal ions.

Claim 31, for example, recites a cleaning composition that *defines the cleaning agent as "capable of dispersing alumina or silica slurry particles and supporting microbial growth."*

Claims 142-143 recites a cleaning composition that is define as *effective to remove residual particles* – e.g., metal particles, abrasive particles, from a substrate.

Applicant's compositions as claimed are not defined as comprising either abrasive particles or metal ions.

Branham does not teach or suggest Applicant's compositions as claimed.

Branham teaches a) ion-specific cationic polymer compositions and b) wetting solutions that are combined with the cationic polymer composition.

Branham's polymer composition requires a *cationic polymer*.

Branham's wetting solutions require an *insolubilizing agent* – i.e., a divalent metal salt (e.g., ZnCl₂, MgCl₂, CaCl₂).

Branham teaches that the inclusion of the insolubilizing agent in the wetting solution as a divalent metal is critical to the operability of the Branham's invention and the described effect. See Branham at paragraphs [0042] and [0098] (emphasis added):

[0042] As stated above, the mechanism of the ion-specific cationic polymer relies upon the interaction of the polymer cation *and the amount and specific type of anion in a wetting solution*. It has been discovered as a part of the present invention that the anion must be a divalent metal ion that forms a complex anion. Furthermore, the counterion of the divalent metal ion also seems to plays a role in the operability of the present invention. The divalent metal ions that are useful in the present invention include Zn²⁺, Ca²⁺ and Mg²⁺. The counter ion for the divalent metal ion that are useful in the present invention include halogen ion, particularly Cl⁻, Br⁻ and I⁻. Thus, salts that are useful in the present invention include ZnCl₂, MgCl₂, and CaCl₂. Other divalent metal salts that form complex anions in the presence of the quaternary ammonium group of the cationic polymer are also useful in the present invention.

[0098] One aspect of the present invention is a wetting composition, which contains an insolubilizing agent that maintains the strength of a water-dispersible binder until the insolubilizing agent is diluted with water, whereupon the strength of the water-dispersible binder begins to decay. The water-dispersible binder may be any of the triggerable binder compositions of the present invention or any other triggerable binder composition. The insolubilizing agent in the wetting composition can be a salt, such as those disclosed for the various triggerable polymers, a blend of salts having both monovalent and multivalent ions, or any other compound, which provides in-use and storage strength to the water-dispersible binder composition, and can be diluted in water to permit dispersion of the substrate as the binder polymer triggers to a weaker state. ...A preferred blend of salts is NaCl and ZnCl₂.

See also, Branham at Tables 2 and 3 – listing the insolubilizing compound as an essential component in the wetting composition – at 2-20 wt-%,

See also Branham in the claims – i.e., Claim 1 ("...said binder composition comprising *a triggerable cationic polymer*...a wetting solution containing at least about 0.5 weight percent of *a divalent metal salt* which is capable of forming a complex anion.").

The cationic polymer in Branham's ion-specific cationic polymer compositions and the insolubilizing agent in the wetting composition clearly produce a *material effect* in each of those compositions.

Applicant's compositions as claimed are defined by a cleaning agent, an antimicrobial agent, solvent and buffering agent.

The inclusion of either a *cationic polymer* or an *insolubilizing agent* as taught by Branham would effect a material change to Applicant's compositions.

As such, Branham does not anticipate or suggest Applicant's compositions as claimed. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Claims under 35 U.S.C. § 103(a) (Branham, Jetcheva)

The Examiner rejected Claims 6, 35, 36, 58 and 59 under Section 103(a) as obvious over Branham in view of Jetcheva (USP 4,655,955). This rejection is respectfully traversed.

Branham teaches the inclusion of citric acid or salt in the described wetting solutions, which are combined with the cationic polymer composition.

Jetcheva teaches a composition for scouring metal surfaces consisting essentially of waste product of fodder yeast (reducing agents, phosphates, ammonium sulfate), citric acid, and ammonium citrate.

The Examiner cites to Jetcheva as teaching the use of ammonium citrate as a cleaning agent in Branham's compositions.

As discussed above, Branham's wetting solutions require an *insolubilizing agent* – i.e., a divalent metal salt (e.g., ZnCl₂, MgCl₂, CaCl₂). Applicant's compositions as claimed are defined by a cleaning agent, an antimicrobial agent, solvent and buffering agent.

For the above-stated reasons as to the failure of Branham to teach or suggest Applicant's compositions as presently claimed, the added disclosure of Jetcheva does not correct the deficiencies of Branham.

Branham, either alone or combined with Jetcheva, does not teach or suggest Applicant's compositions as claimed. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Claims under 35 U.S.C. § 103(a) (Branham, Vaartstra)

The Examiner rejected Claim 17 as obvious over Branham in view of Vaartstra (USP 6,242,165). This rejection is respectfully traversed.

The Examiner stated that "Branham...fails to indicate what specific buffering agent it is," and maintains that it would be obvious to utilize ammonium hydroxide as a buffering agent in Branham's compositions based on Vaartstra. Vaartstra discloses compositions for removal of organic material.

Contrary to the Examiner's assertion, Branham *does* provide particular examples of pH control agents – which do not include ammonium hydroxide. See, for example, at paragraph [0099] ("...malic acid or potassium hydroxide") and at paragraphs [0158] to [0159] (emphasis added):

[0158] *pH Control Agents*

[0159] Suitable pH control agents for use in the wetting composition of the present invention include, but are not limited to, *hydrochloric acid, acetic acid, sodium hydroxide, potassium hydroxide, and the like.* ...

Thus, it would not be obvious to utilize ammonium hydroxide in Branham's wetting composition.

Furthermore, Branham teaches the inclusion of a buffering agent in the described wetting solutions (that are combined with the cationic polymer composition) – which, as discussed above, require an *insolubilizing agent* – i.e., a divalent metal salt (e.g., ZnCl₂, MgCl₂, CaCl₂). Applicant's compositions as claimed are defined by a cleaning agent, an antimicrobial agent, solvent and buffering agent.

For the above-stated reasons as to the failure of Branham to teach or suggest Applicant's compositions as presently claimed, the added disclosure of Vaartstra does not correct the deficiencies of Branham.

Branham, either alone or combined with Vaartstra, does not teach or suggest Applicant's compositions as claimed. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Claims under 35 U.S.C. § 103(a) (Branham, Lyons)

The Examiner rejected Claims 9, 22 and 30 as obvious over Branham in view of Lyons (US 2004/0214797). This rejection is respectfully traversed.

Branham teaches the inclusion of an antibacterial agent in the described wetting solutions (that are combined with the cationic polymer composition).

Citing to Lyons, the Examiner maintains that it would be obvious to use ammonium sorbate as an antibacterial agent in Branham's composition on the basis that Lyons "teaches a composition used for *antimicrobial cleaning...*"

The Examiner's characterization of Lyons is incorrect. *Nowhere* does Lyons describe its composition as a "cleaning" composition.

Rather, Lyons discloses a *pharmaceutical* composition – i.e., *ophthalmic* compositions, composed of a steroid, cyclodextrin and polyhexamethylene biguanide. Nothing in Lyons teaches or suggests the use of ammonium sorbate in a *cleaning* solution.

Moreover, as discussed above, Branham's wetting solutions require an *insolubilizing agent* – i.e., a divalent metal salt (e.g., ZnCl₂, MgCl₂, CaCl₂). Applicant's compositions as claimed are defined by a cleaning agent, an antimicrobial agent, solvent and buffering agent.

For the above-stated reasons as to the failure of Branham to teach or suggest Applicant's compositions as presently claimed, the added disclosure of Lyons does not correct the deficiencies of Branham.

Branham, either alone or combined with Lyons, does not teach or suggest Applicant's compositions as claimed. Accordingly, withdrawal of this rejection is respectfully requested.

Extension of Term. The proceedings herein are for a patent application and the provisions of 37 CFR § 1.136 apply. Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that Applicant has inadvertently overlooked the need for a petition for extension of time. If any extension is required and/or any fee is due, please consider this a petition therefor and charge the required fee to Account No. 23-2053.

It is respectfully submitted that the claims are in condition for allowance and notification to that effect is earnestly solicited.

Respectfully submitted,



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